FIG. 1 (Prior Art)

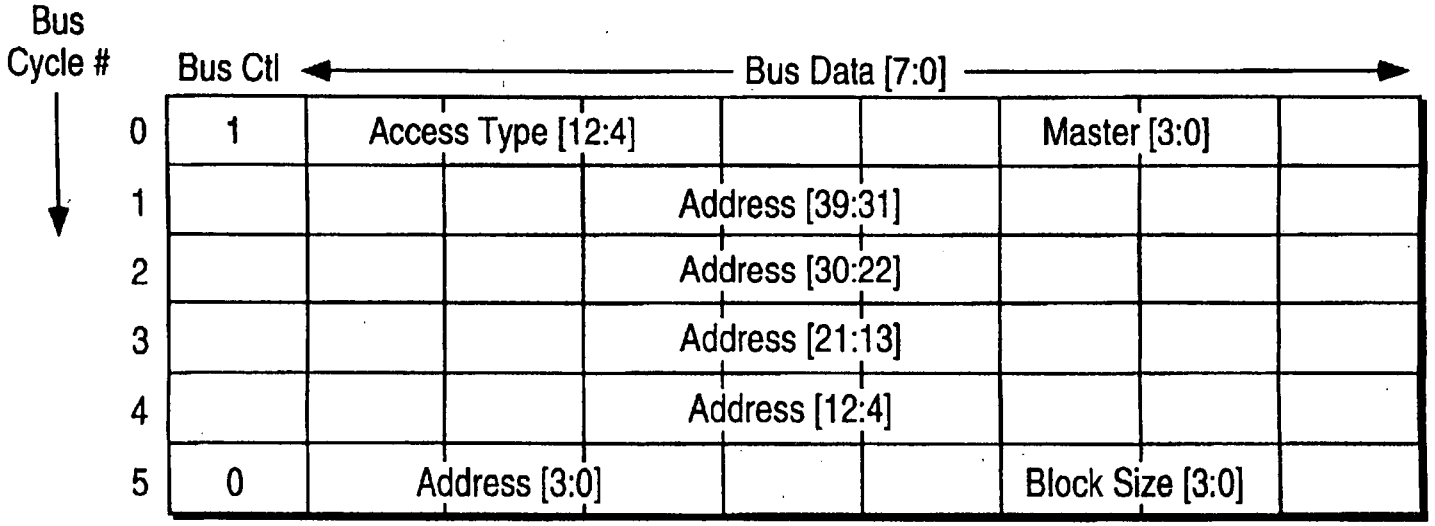


FIG. 2

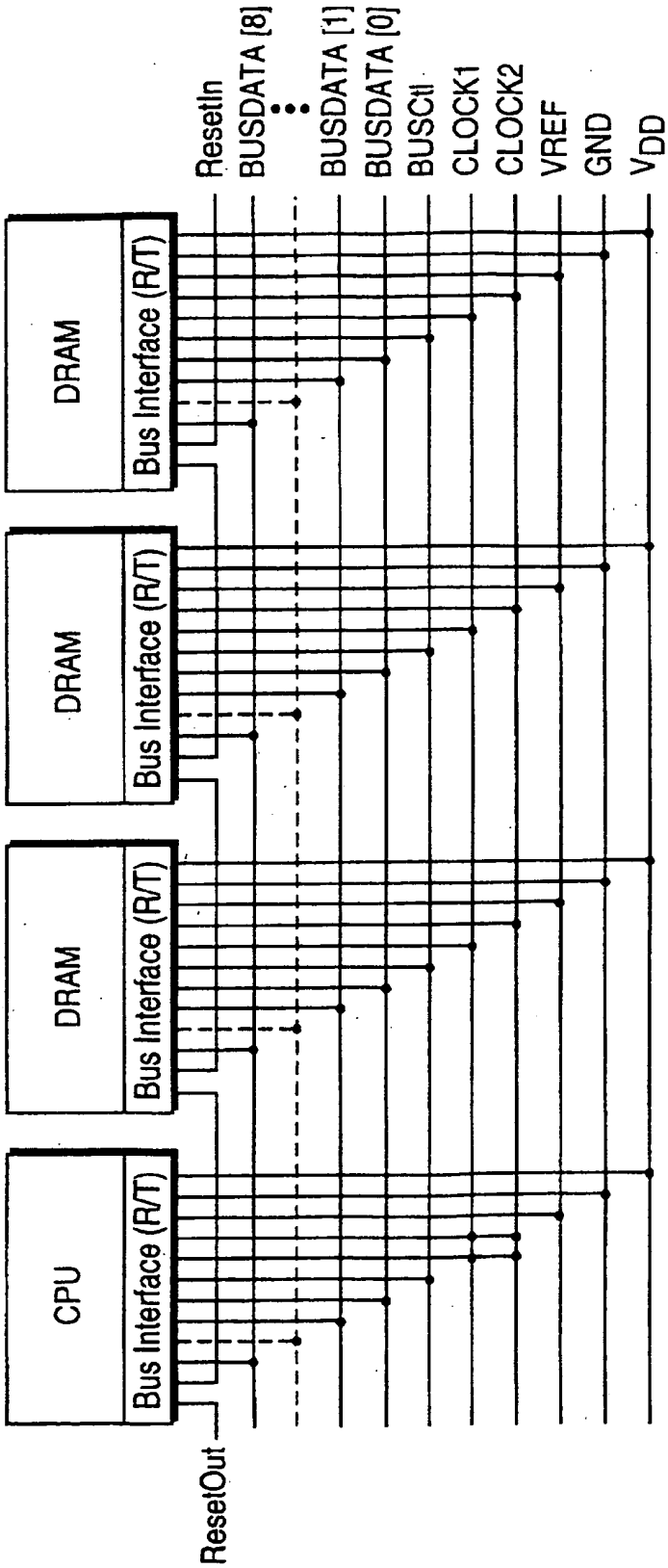


FIG. 3

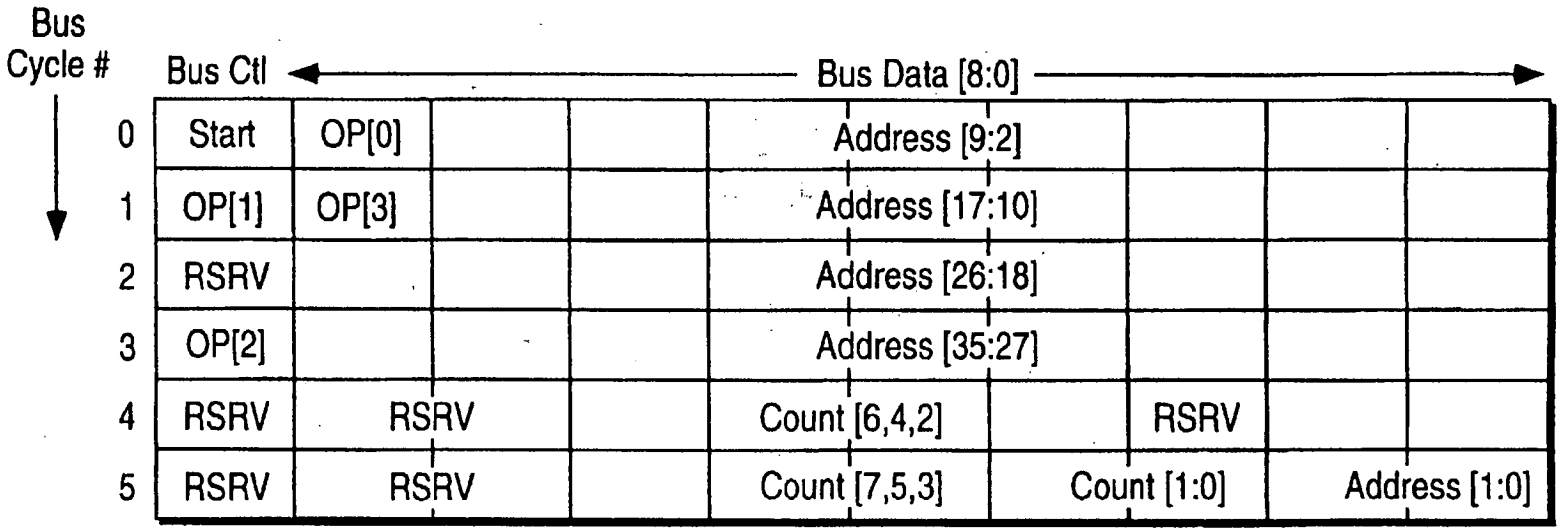


FIG. 4

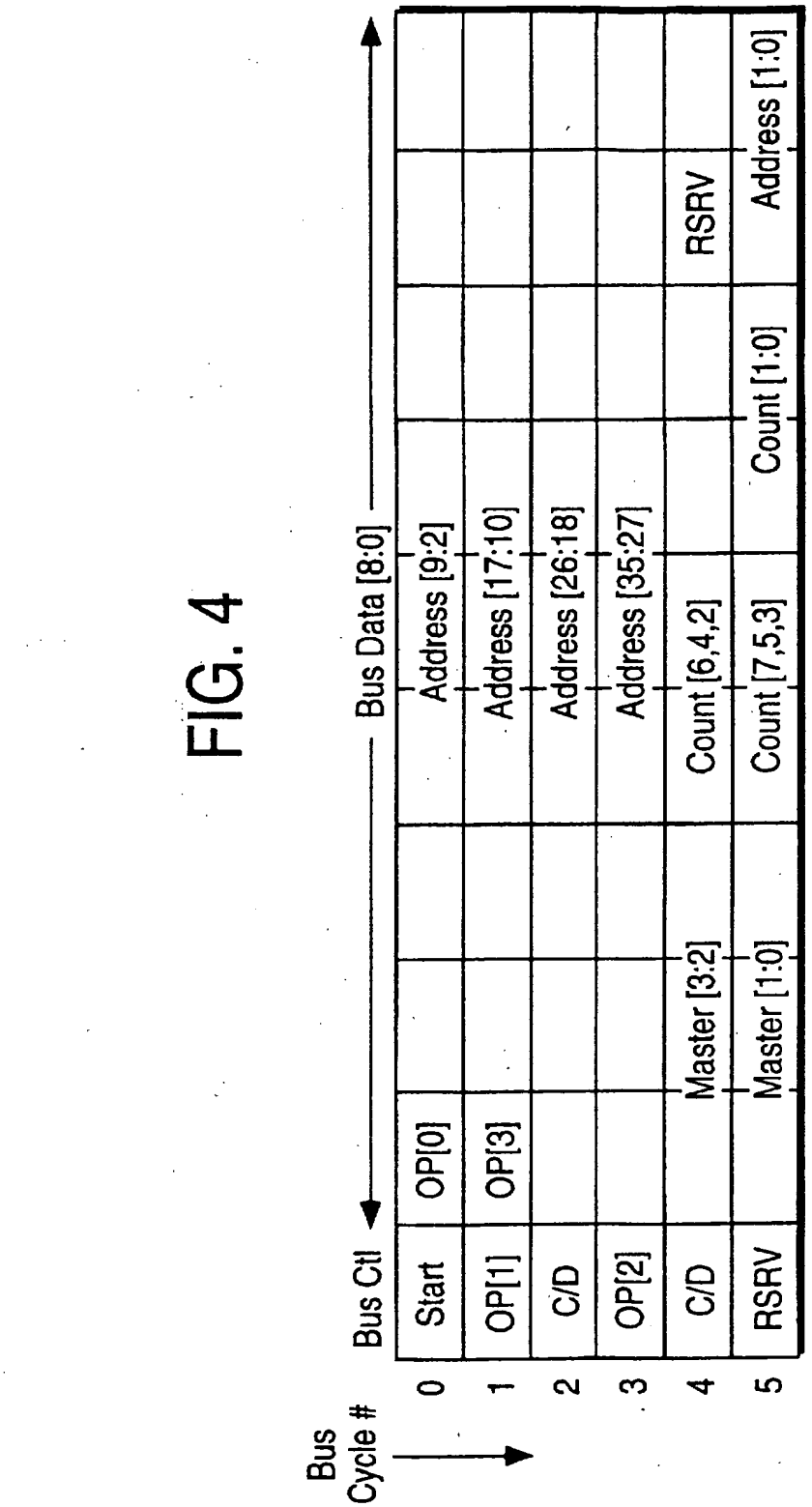
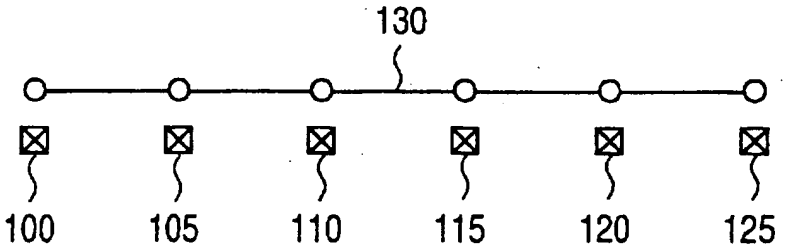


FIG. 5a



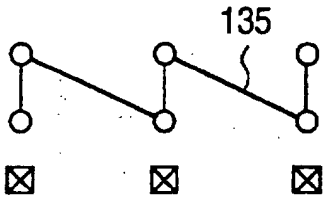




FIG. 5b

FIG. 6a

| Adr[1:0] | Mask[3:0] |
|---|---|
| 00 | 1111 |
| 01 | 1110 |
| 10 | 1100 |
| 11 | 1000 |

FIG. 6b

| Count[1:0] | Mask[7:4] |
|---|---|
| 00 | 0001 |
| 01 | 0011 |
| 10 | 0111 |
| 11 | 1111 |

FIG. 7a

One Byte Transfer (MasterCount[7:0] = 00000000)

| Count[7:2] | Count[1:0] | Adr[1:0] | Mask[7:4] | Mask[3:0] | Mask[7:4] and Mask[3:0] |
|---|---|---|---|---|---|
| 000000 | 00 | 00 | 0001 | 1111 | 0001 |
| 000000 | 01 | 01 | 0011 | 1110 | 0010 |
| 000000 | 10 | 10 | 0111 | 1100 | 0100 |
| 000000 | 11 | 11 | 1111 | 1000 | 1000 |

FIG. 7b

Two Byte Transfer (MasterCount[7:0] = 00000001)

| Count[7:2] | Count[1:0] | Adr[1:0] | Mask[7:4] | Mask[3:0] | Mask[7:4] and Mask[3:0] |
|---|---|---|---|---|---|
| 000000 | 01 | 00 | 0011 | 1111 | 0011 |
| 000000 | 10 | 01 | 0111 | 1110 | 0110 |
| 000000 | 11 | 10 | 1111 | 1100 | 1100 |
| 000001 | 00 | 11 | 0001 | 1000 | not used-two QB's |

FIG. 7c

Four Byte Transfer (MasterCount[7:0] = 00000011)

| Count[7:2] | Count[1:0] | Adr[1:0] | Mask[7:4] | Mask[3:0] | Mask[7:4] and Mask[3:0] |
|---|---|---|---|---|---|
| 000000 | 11 | 00 | 1111 | 1111 | 1111 |
| 000001 | 00 | 01 | 0001 | 1110 | not used-two QB's |
| 000001 | 01 | 10 | 0011 | 1100 | not used-two QB's |
| 000001 | 10 | 11 | 0111 | 1000 | not used-two QB's |

FIG. 7d

Eight Byte Transfer (MasterCount[7:0] = 00000111)

| Count[7:2] | Count[1:0] | Adr[1:0] | Mask[7:4] | Mask[3:0] | Mask[7:4] and Mask[3:0] |
|---|---|---|---|---|---|
| 000001 | 11 | 00 | 1111 | 1111 | not used-two QB's |
| 000010 | 00 | 01 | 0001 | 1110 | not used-three QB's |
| 000010 | 01 | 10 | 0011 | 1100 | not used-three QB's |
| 000010 | 10 | 11 | 0111 | 1000 | not used-three QB's |